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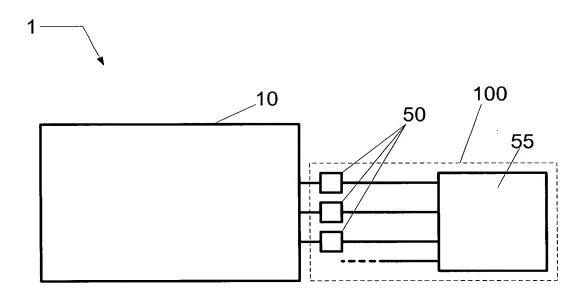
FIG. 1.

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FIG. 2.

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FIG. 3.

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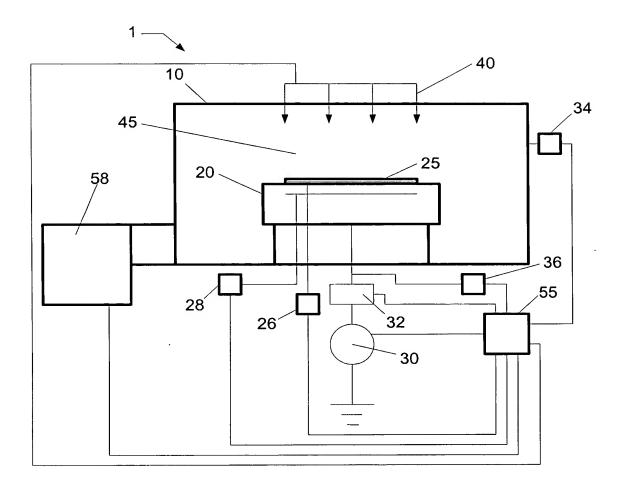Sheet 4 of 9

FIG. 4.
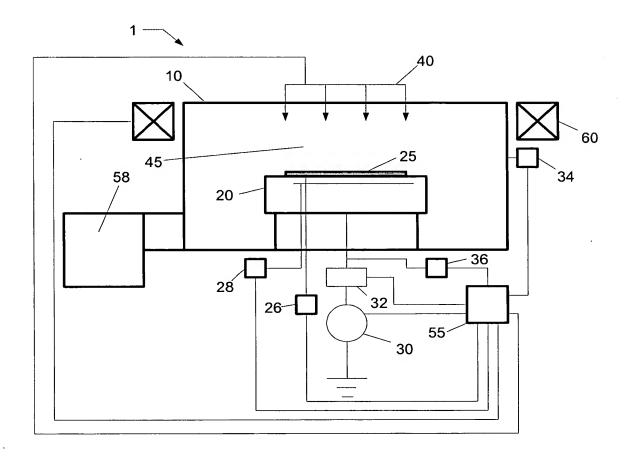
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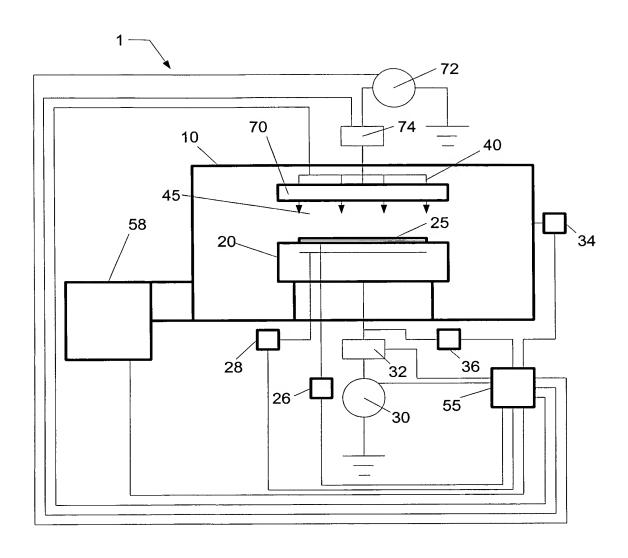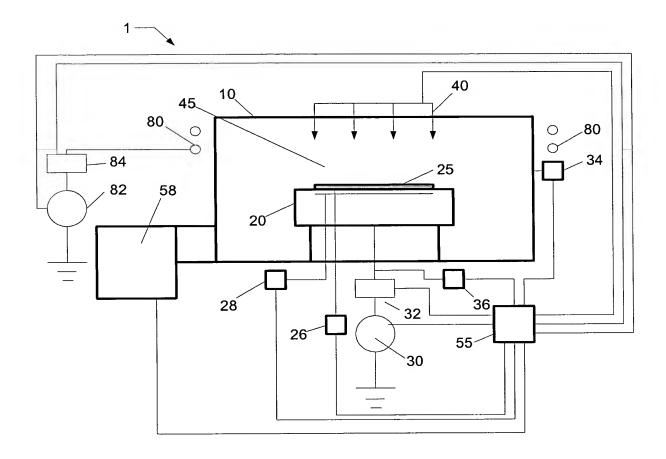Docket No: 250638US6 YA
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FIG. 5.

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Scale Work Set ☒

Variables: 43, Selected: 1

No.	Name	VBlock	SBType	BaseWt	SBlk	SBlkWt	Modi...	ScaleWt	
1	STEP_DU...	✕	UV	44.688	-	-	0.100	4.469	
2	APC-4	✕	UV	9.325	-	-	0.500	4.662	
3	APC-4S	✕	UV	11.263	-	-	0.500	5.631	
4	C1_POSIT...	✕	UV	0.055	-	-	1	0.055	
5	C1_POSIT...	✕	UV	0.680	-	-	1	0.680	
6	C2_POSIT...	✕	UV	0.918	-	-	1	0.918	
7	C2_POSIT...	✕	UV	1.166	-	-	1	1.166	
8	COOL_GA...	✕	UV	60.515	-	-	0.010	0.605	

Find: [   ]   [Select All]

Set scaling

☐ Base: ☐ Block scaling: ☑ Modifier:
[UV   ▼]   [1   ▼]   [1.000]
                  Type:
                  [1/4root ▼]   [Set]

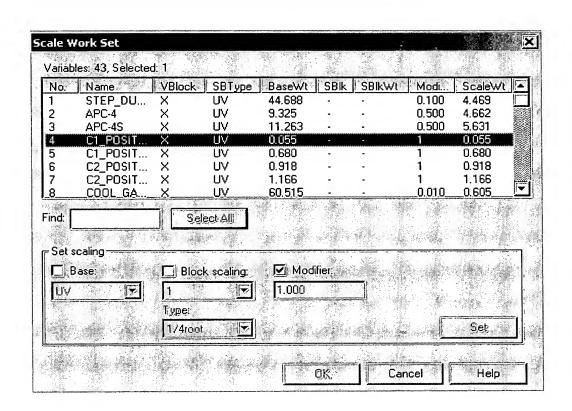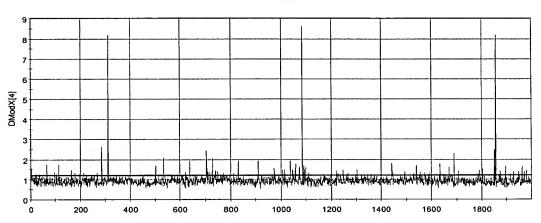[OK]   [Cancel]   [Help]

FIG. 6.

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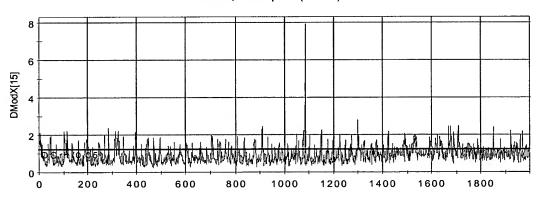Inventor: Hongyu YUE et al.
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7A-C1S41.M3 (PC), Regular PCA, Work set
DModX, Comp 4(Cum)

Dcrit [4] = 1.20146, Normalized distances, Non weighted residuals
Simca-P 8.1 by Umetrics AB 2002-11-14 10:49

FIG. 7A.

7A-C1S41.M6 (PC), Simplified WPCA, Work set
DModX, Comp 15(Cum)

Dcrit [15] = 1.23541, Normalized distances, Non weighted residuals
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FIG. 7B.

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7A-C1S41.M3 (PC), Regular PCA, work set
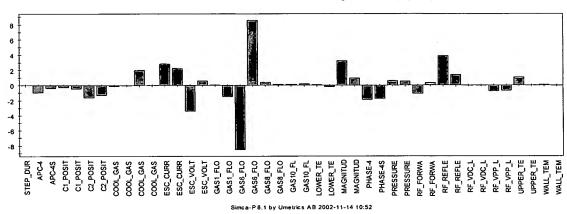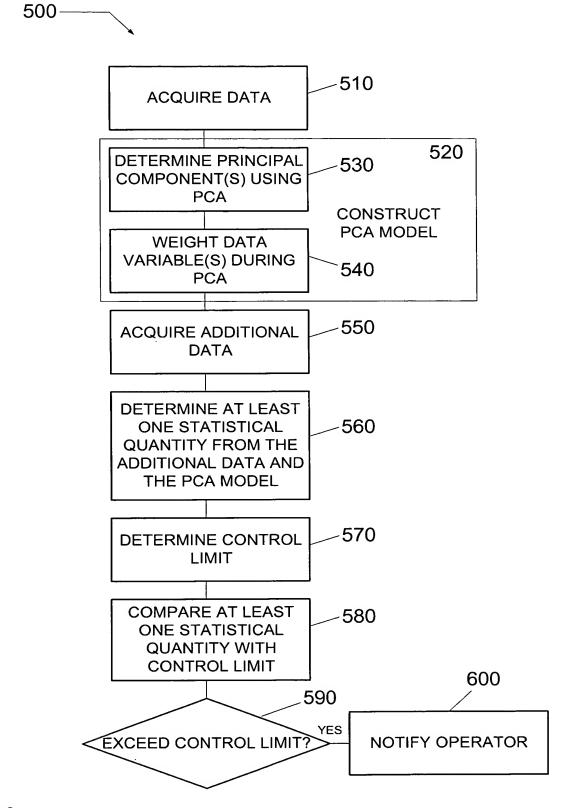Contribution DModX, Obs313, Xresid scaled, weight=RX, Comp4(Cum)

Simca-P 8.1 by Umetrics AB 2002-11-14 10:52

FIG. 8.

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500

510 ACQUIRE DATA

520 CONSTRUCT PCA MODEL

530 DETERMINE PRINCIPAL COMPONENT(S) USING PCA

540 WEIGHT DATA VARIABLE(S) DURING PCA

550 ACQUIRE ADDITIONAL DATA

560 DETERMINE AT LEAST ONE STATISTICAL QUANTITY FROM THE ADDITIONAL DATA AND THE PCA MODEL

570 DETERMINE CONTROL LIMIT

580 COMPARE AT LEAST ONE STATISTICAL QUANTITY WITH CONTROL LIMIT

590 EXCEED CONTROL LIMIT?

YES

600 NOTIFY OPERATOR

FIG. 9.